

Appendix L.2

Off-Site Noise Memo Urban Crossroads, 2022

Travertine SPA
Draft EIR
SCH# 201811023
Technical Appendices

October 2023

December 14, 2022

Mr. Mike Cho
TRG Land
898 Production Place
Newport Beach, CA 92663

SUBJECT: TRAVERTINE SPECIFIC PLAN OFF-SITE TRAFFIC NOISE MITIGATION MEASURES

Dear Mr. Mike Cho:

Urban Crossroads, Inc. is pleased to submit this Off-Site Traffic Noise Mitigation for the Travertine Specific Plan ("Project"). This Off-Site Traffic Noise Mitigation has been prepared to supplement the October 26, 2022, *Travertine Specific Plan Noise Impact Analysis* ("NIA") prepared by Urban Crossroads, Inc. Based on the significance criteria in Section 4 of the NIA, the Project-related noise level increases are considered *potentially significant* under Phase (2031) with Project conditions on the following roadway segments:

- Avenue 58 west of Madison Street (Segment #1)
- Avenue 62 west of Monroe Street (Segment #6)
- Monroe Street south of Avenue 60 (Segment #8)

The three roadway segments estimated to experience *potentially significant* noise level impacts due to Project-related traffic are located near the Project Site.

OFF-SITE TRAFFIC NOISE MITIGATION

To reduce the *potentially significant* Project traffic noise level increases on the study area roadway segment, potential noise mitigation measures are considered in this analysis. Potential mitigation measures discussed below include rubberized asphalt hot mix pavement and off-site noise barriers for the existing residential uses adjacent to impacted roadway segments.

RUBBERIZED ASPHALT

Due to the potential noise attenuation benefits, rubberized asphalt is considered as a mitigation measure for the Project-related roadway improvements associated with Project construction. To reduce traffic noise levels at the noise source, Caltrans research has shown that rubberized asphalt can provide noise attenuation of approximately 4 dBA for automobile traffic noise levels. (25) Changing the pavement type of a roadway has been shown to reduce the amount of tire/pavement noise produced at the source under both near-term and long-term conditions. Traffic noise is generated primarily by the interaction of the tires and pavement, the engine, and exhaust systems. For automobiles noise, as much as 75 to 90-percent of traffic noise is generated by the interaction of the tires and pavement, especially when traveling at higher and constant speeds. (5) According to research conducted by Caltrans (25) and the Canadian Ministry of Transportation and Highways (26) a 4 dBA reduction in tire/pavement noise is attainable using rubberized asphalt under typical operating conditions.

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Page 2 of 2

While rubberized asphalt will provide some noise reduction, this noise study recognizes that this is only effective for tire-on-pavement noise at higher speeds. Therefore, rubberized asphalt is not proposed as mitigation for the Project and the off-site Project-related traffic noise level increases at adjacent land uses would remain *significant*.

OFF-SITE NOISE BARRIERS

Since existing and future noise-sensitive receiving land uses are located adjacent to the impacted roadway segments in the Project study area, off-site noise barriers were considered in this analysis as a potential traffic noise mitigation measure to reduce the impacts. Off-site noise barriers are estimated to provide a *readily perceptible* 5 dBA reduction which, according to the FHWA, is *simple* to attain when blocking the line-of-sight from the noise source to the receiver. In addition, according to FHWA guidance, outdoor living areas are generally limited to outdoor living areas of frequent human use (e.g., backyards of single-family homes). Therefore, front and side yards of residential homes adjacent to off-site roadway segments do not represent noise sensitive areas of frequent human use that require exterior noise mitigation.

However, the impact off-site roadway segments already benefit from existing off-site noise barriers. Consistent with the County of Riverside Noise Element, these barriers were constructed to mitigate the future long-range General Plan Roadway network and will provide the noise attenuation needed to satisfy the 65 dBA CNEL exterior noise requirements. Increasing the existing off-site traffic noise barriers is not anticipated to provide the FHWA attainable reduction of 5 dBA required to reduce the off-site traffic noise level increases. As such, off-site noise barriers would not be feasible and would not lower the off-site traffic noise levels below a level of significance, and therefore, noise barriers are not proposed as mitigation for the Project. If you have any questions, please contact me directly at (949) 584-3148.

Respectfully submitted,

URBAN CROSSROADS, INC.



Bill Lawson, P.E., INCE
Principal

